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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,603	02/04/2004	Robin A. Steinbrecher	42P18546	5068

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EXAMINER
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HOFFBERG, ROBERT JOSEPH

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/772,603	<b>Applicant(s)</b> STEINBRECHER, ROBIN A.	
	<b>Examiner</b> Robert J. Hoffberg	<b>Art Unit</b> 2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-13 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-13, 21-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Cutts et al. (IBM Technical Disclosure Bulletin, Feb 1994, p. 217).

With respect to Claim 7, Cutts et al. teaches a first power supply (Fig. 1a) to supply electrical power to the system; a first airflow gate (Fig. 2, #2) able to reduce airflow to the first power supply when a failure (p. 217, 1<sup>st</sup> para., lines 3-5 and 2<sup>nd</sup> para. lines 5-6) of the first power supply is detected; a second power supply (p. 217, 1<sup>st</sup> para., lines 1-3, redundancy) to supply electrical power to the system; and a second airflow gate (Fig. 2, #2 on redundant unit) able to reduce airflow to the second power supply when a failure (p. 217, 1<sup>st</sup> para., lines 3-5 and 2<sup>nd</sup> para. lines 5-6) of the second power supply is detected.

With respect to Claim 8, Cutts et al. further teaches wherein the first airflow gate is able to prevent airflow (p. 217, 2<sup>nd</sup> para. line 5, closing) to the first power supply when the failure of the first power supply is detected, and wherein the second airflow gate able to prevent airflow (p. 217, 2<sup>nd</sup> para. line 5, closing) to the second power supply when the failure of second power supply is detected.

With respect to Claim 9, Cutts et al. further teaches one or more fans (Fig. 1a, #1) to provide airflow to at least one of the first power supply and the second power supply.

With respect to Claim 11, Cutts et al. further teaches that at least one of the one or more fans is operated at a higher speed (p. 217, 2<sup>nd</sup> para., lines 2-3) at when one of the first and second power supplies fail.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 10, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cutts et al. (IBM Technical Disclosure Bulletin, Feb 1994, p. 217) as applied to claim 7 above, in view of Akimitsu (JP 05-021978).

With respect to Claim 10, Cutts et al. teaches the system of claim 7 above, but fails to disclose that at least one of the one or more fans is deactivated when one of the first and second power supplies fail. Akimitsu teaches that at least one of the one or more fans (Fig. 1, #3a or #3b) is deactivated (para. 0019, lines 2-3) when one of the first and second power supplies fail (para. 0019, line 1). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Cutts et al. with that of Akimitsu for the purpose of closing the vanes associated with a

improperly operating fan resulting from an improperly functioning power supply to prevent recirculation while the fan is not operating within its specified range.

With respect to Claim 12, Cutts et al. teaches the system of claim 7 above, but fails to disclose that detection circuitry associated with the first power supply and arranged to cause the first airflow gate to close when the failure of the first power supply is detected. Akimitsu teaches that detection circuitry (Fig. 1, #7a) associated with the first power supply (Fig. 1, #5a) and arranged to cause (para. 0019, lines 2-3) the first airflow gate (Fig. 1, #4a) to close when the failure (para. 0019, line 1) of the first power supply is detected. With respect to Claim 13, Akimitsu further teaches that the detection circuitry causes the first airflow gate to close by deactivating (Para. 0019, line 2, suspends) the first power supply. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Cutts et al. with that of Akimitsu for the purpose of closing an airflow gate or vane associated with a fan to prevent recirculation upon failure of a power supply providing power to the fan.

5. Claims 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cutts et al. (IBM Technical Disclosure Bulletin, Feb 1994, p. 217) in view of Hall et al. (IBM Technical Disclosure Bulletin, Aug 1994, p. 143).

With respect to Claim 21, Cutts et al. teaches a system, comprising: a plurality of power supplies (Fig. 1, 1a and para. 1, line 1, redundancy) jointly supplying electrical power (para. 1, line 4, additional power); a plurality airflow restrictors (Fig. 1, 2 and para. 1, line 1, redundancy) respectively associated with the plurality of power supplies; and at least one fan (Fig. 1, #1) to provide airflow. Cutts et al. fails to disclose at least of

one fan to provide airflow to a plurality of power supplies. Hall et al. teaches at least of one fan (see Fig. 1) to provide airflow to the plurality of power supplies (see Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Cutts et al. with that of Hall et al. for the purpose of providing an airflow from a fan to cool multiple devices.

6. Claims 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cutts et al. (IBM Technical Disclosure Bulletin, Feb 1994, p. 217) in view of Hall et al. (IBM Technical Disclosure Bulletin, Aug 1994, p. 143) as applied to claim 21 above, and further in view of Akimitsu (JP 05-021978).

With respect to Claim 22, Cutts et al. in view of Hall et al. teach the system of claim 21 above. Hall et al. further teaches an associated one (see Fig. 6) of the plurality of airflow restrictors (Fig. 1, shutters on each fan) to restrict airflow to the one (Fig. 1, power supply left side) of the plurality of power supplies (p. 145 1<sup>st</sup> para., lines 9-10). They fail to teach detection circuitry to detect a failure in one of the power supplies. Akimitsu teaches detection circuitry (Fig. 1, #7a) to detect a failure (para. 0019, line 1) in one (Fig. 1, #5a) of the plurality of power supplies (Fig. 1, #5a and #5b) and to cause (Para. 0019, line 2, suspends) an associated one of the plurality of airflow restrictors (Fig. 1, #4a) to restrict airflow. With respect to Claim 23, Akimitsu further teaches that the detection circuitry is further arranged to deactivate (Para. 0019, line 2, suspends) the one of the plurality of power supplies. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Cutts et al. in view of Hall et al. with that of Akimitsu for the purpose of closing an airflow restrictor

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associated with a fan to prevent recirculation upon failure of a power supply providing power to the fan.

7. Claims 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cutts et al. (IBM Technical Disclosure Bulletin, Feb 1994, p. 217) in view of Hall et al. (IBM Technical Disclosure Bulletin, Aug 1994, p. 143), further in view of Akimitsu (JP 05-021978) as applied to the above claims, and further in view of Bash et al. (US 7,031,154).

With respect to Claim 24, Cutts et al. in view of Hall et al. and further in view of Akimitsu teach the system of the above claims. Akimitsu further teaches closing (para. 0017, lines 5) the associated one (Fig. 1, #4b) of the plurality of airflow restrictors (Fig. 1, #4a and #4b) based on detection (para. 0019, line 1) of the failure in the one of the plurality of power supplies by the detection circuitry. They fail to teach an actuator (Fig. 3C, #62) to close an airflow restrictors (Fig. 3C, #56). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the system of Cutts et al. in view of Hall et al. in further view of Akimitsu with that of Bash et al. of providing an actuator to have an airflow that is controlled independently from the airflow generator (Col. 7, lines 40-41).

### ***Response to Arguments***

8. Applicant's arguments filed 4/19/06, with respect to the rejection(s) of claim(s) 7-13 and 21-24 have been fully considered and are persuasive. Therefore, the rejection

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has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made above.

9. Applicant's amendments to the specification are acceptable.

Applicant's election with traverse of Claims 7-13 and 21-24 in the reply filed on November 16, 2005 is acknowledged. The traversal is on the ground(s) that all the groups I, II and III should be classified into a common area (i. e. classes 165 and/or 454). This is not found persuasive because class 165 is heat exchange (includes apparatus or process not provided for in other classes for transferring heat, or apparatus or process not provided for in other classes relating to an auxiliary device particularly adapted to be used with such heat transfer apparatus) and class 454 is ventilation (for apparatus and processes for supplying air to and removing it from enclosures, for distributing and circulating the air therein, or for preventing its contamination). Neither of these classes provide for the structural elements of an actuator or a control system for responding a change in the system operating condition. Applicant's arguments with respect to classification 361/694-695 for Group II, the applicant's claims a power supply which has diverse electrical components and a system which needs to be contained in a housing in order to control the airflow as claimed by applicant. With respect to classification 713/300+ for Group III, applicant's claims a powering down (deactivation) including "means for modifying an amount of power used by a digital data processing system."

The requirement is still deemed proper and is therefore made FINAL.



**Conclusion**

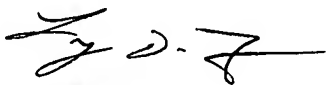
10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Larson et al. (US 2004/02522456) teaches an actuator controlled airflow restrictors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert J. Hoffberg whose telephone number is (571) 272-2761. The examiner can normally be reached on 8:30 AM - 4:30 PM Mon - Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RJH 

  
LYNN FEILD  
SUPERVISORY PATENT EXAMINER